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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/189,010	11/09/1998	TATSUYUKI TOKUNAGA	1232-4478	5014

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EXAMINER

YE, LIN

ART UNIT PAPER NUMBER

2612

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/189,010

Applicant(s)

TOKUNAGA, TATSUYUKI

Examiner

Lin Ye

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-14 and 18-22 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 15-17 and 23-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-14 and 18-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's election with traverse of the election of invention in Group I (claims 1-3, 6-14, and 18-22) in Paper No. 4 filed on 10/7/02 is acknowledged. The traversal is on the ground(s) that there is no burden on the examiner in searching three groups of invention and that all groups should be examined together. This is not found persuasive because the examiner made a *prima facie* showing of examining burden by pointing out the distinct groups of the claimed invention. " I. Claims 1-3, 6-14 and 18-22 drawn to photoelectric conversion elements on a substrate with a storage for storing control information to control accumulation period, classified in class 348, subclass 297. II. Claims 4-5 and 15-17 drawn to control the amplification factor of amplifying an accumulated charge signal of photoelectric conversion element, classified in class 348, subclass 301. III. Claims 23-58 drawn to photoelectric conversion elements divided into a plurality of regions and output accumulation states of each region with the time period changeable, classified in class 348, subclass 362 ”.

The requirement is still deemed proper and is therefore made Final.

2. Claims 4-5, 15-17 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group II, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.
3. Claims 23-58 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group III, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 4.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

((e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-3, 6-14, and 18-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Sato et al. U.S. Patent 5,943,514.

Referring to claims 1 and 21, the Steinberg reference discloses in Figures 1 ad 5, a photoelectric conversion device comprising: photoelectric conversion means including a photoelectric conversion element (AF sensor 11 includes three spaced CCD line sensor 13A, 13B, 13C are made of photodiode arrays) constructed by a plurality of pixels (photo diodes) on a semiconductor substrate (See Col. 6, lines 12-18); and storage means (timing generator control circuit) for storing predetermined control information arranged on the same semiconductor substrate (See Col. 8, lines 15-25).

Referring to claim 2, the Steinberg reference discloses control means for controlling charge accumulation (integration) of said photoelectric conversion means on the basis of the control information stored in said storage means (timing generator control circuit includes the

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register 31R. The content of the data of the register 31R is shown in Figure 5. The bit D6 and D7 is for controlling charge accumulation, See Col. 8, lines 26-33).

Referring to claim 3, the Steinberg reference discloses photoelectric conversion means further includes monitor (Monitor sensors 23A-C as shown in Figure 1) means for monitoring an accumulated charge state in said photoelectric conversion element (See Col. 7, lines 48-54), and said control means includes selection (the bit D5 of register 31R is a flag for selecting the line sensor 13A-C, See Col. 8, lines 26-27) means for selecting an arbitrary one of a plurality of pieces of status information on the basis of the control information stored in said storage means, and comparison (the integration control circuit 25A-C in which the corrected reference voltage is compared with the output voltages of the monitor sensors 23A-C) means for comparing an output from said monitor means with the status information selected by said selection means, and controls the charge accumulation of said photoelectric conversion means on the basis of a comparison result of said comparison means (See Col 7, lines 30-62).

Referring to claim 6, the Steinberg reference discloses a plurality of photoelectric conversion means equivalent to said photoelectric conversion means (See Col. 6, lines 12-25).

Referring to claim 7, the Steinberg reference discloses monitor (25A-C) means monitors and outputs information based on a maximum accumulated charge amount (the corrected reference voltage) of said photoelectric conversion element (See Col 7, lines 45-58).

Referring to claim 8, the Steinberg reference discloses wherein said control means stores the status information selected by said selection means in said storage means as the control information (See Col. 8, lines 26-33).

Referring to claim 9, the Steinberg reference discloses wherein said photoelectric conversion (CCD Sensor 13A-C) means is constructed by forming said photoelectric conversion element and storage means on a single substrate (See col. 6, lines 15-20).

Referring to claim 10, the Steinberg reference discloses wherein said control (31) means includes determination means for determining predetermined information on the basis of said output from said monitor means, and stores the information determined by said determination means in said storage means as the control information (See Col. 8, lines 15-25).

Referring to claim 11, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claim 10.

Referring to claim 12, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claim 1.

Referring to claim 13, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claim 13.

Referring to claim 14, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claims 6 and 9.

Referring to claim 18, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claim 7.

Referring to claim 19, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claim 8.

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Referring to claim 20, the Steinberg reference discloses all subject matter as discussed with respected to same comment as with claim 10.

Referring to claim 22, the Steinberg reference discloses a storage medium (Register 31R) which computer-readably stores the processing steps of a control method (See Col. 8, lines 26-33).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Lin Ye** whose telephone number is **(703) 305-3250**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R Garber can be reached on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

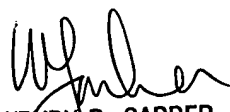
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Lin Ye

December 13, 2002


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
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